Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-38. (canceled)

39. (currently amended) A device for determining an allowable UV exposure time or allowable UV radiation dose for human skin, comprising:

a UV emitter for emitting UV radiation on the skin;

a UV sensor for receiving UV radiation diffusely reflected by the skin; and

an evaluation unit coupled to the UV emitter and the UV sensor for determining UV radiation absorption of the skin based on the UV radiation emitted on the skin by the UV emitter and the diffusely reflected UV radiation received by the UV sensor.

40. (previously presented) The device of claim 39, wherein the UV emitter emits UV radiation for which the skin has an absorption coefficient μa greater than or equal to a scattering coefficient μs.

41. (previously presented) The device of claim 39, wherein the UV emitter emits UV radiation having a wavelength smaller than the diameter of a skin cell nucleus.

42. (previously presented) The device of claim 39, wherein the UV emitter emits UV radiation having a wavelength of approximately 345 nm to 355 nm.

43. (previously presented) The device of claim 39, wherein the UV emitter and the UV sensor are disposed in a housing of a hand-held instrument.

44. (previously presented) The device of claim 43, wherein the housing has an application surface for placement on the skin, each of the UV emitter and the UV sensor has an optical axis, and the UV emitter and the UV sensor are disposed at an angle relative to each other so that a reflection of a ray on the optical axes of the UV emitter and the UV sensor occurs at a depth of penetration sufficient to measure diffuse reflection in a layer of skin ~~of up to approximately 1 nm below the application surface~~.

45. (previously presented) The device of claim 44, wherein the depth of penetration can be varied.

46. (previously presented) The device of claim 44, wherein the optical axes of the UV emitter and the UV sensor span an angle of approximately 70° to 110°.

47. (previously presented) The device of claim 46, wherein the angle of the optical axes can be adjusted to vary the depth of penetration.

48. (previously presented) The device of claim 44, wherein each of the UV emitter and the UV sensor is disposed at a distance above the application surface, and the distance can be adjusted to vary the depth of penetration.

49. (previously presented) The device of claim 39, further comprising a processor unit coupled to the evaluation unit and operable to compute a mean value of a plurality of determinations of UV radiation absorption of the skin.

50. (previously presented) The device of claim 49, wherein the processor unit is operable to assign a threshold UV radiation dose to a single determination of UV radiation absorption of the skin or the mean value of a plurality of determinations of UV radiation absorption of the skin.

51. (previously presented) The device of claim 50, further comprising an electronic memory coupled to the processor unit and operable to store a fraction of erythemally-effective UV radiation from a UV radiation source, and the processor unit is operable to compute a maximum UV exposure time or UV radiation dose from data of the UV radiation source and the threshold UV radiation dose.

52. (previously presented) The device of claim 39, further comprising an interface for storing and retrieving data.

53. (previously presented) The device of claim 52, wherein the interface can be used to operate a UV radiation source.

54. (previously presented) The device of claim 44, wherein the housing has two pairs of UV sensors, the two UV sensors in each pair are oppositely disposed, and the two pairs of UV sensors are disposed at an angle of approximately 90° relative to each other.

55. (previously presented) The device of claim 54, further comprising four optical waveguides, each of the optical waveguides has a free end, and the two pairs of UV sensors are formed by the free ends of the optical waveguides.

56. (currently amended) The device of claim 55, wherein each of the free ends of the optical waveguides has a filter ~~minic~~ mimic operable to cause a short-wave component of a diffusely reflected UV radiation to be reflected to a greater extent than a long-wave component of the diffusedly reflected UV radiation.

57. (previously presented) The device of claim 55, wherein each of the optical waveguides is connected to a common UV sensor.

58. (previously presented) The device of claim 57, wherein the common UV sensor has a linear characteristic curve over an erythema-effective spectrum.

59. (previously presented) The device of claim 57, wherein the common UV sensor has a characteristic curve conforming to an erythema-effective spectrum.

60. (previously presented) The device of claim 54, wherein a distance between the two UV sensors of one pair of the two pairs of UV sensors is approximately equal to a height of a human body lying on a tanning bed.

61. (previously presented) The device of claim 39, further comprising a distance measuring instrument for maintaining a predetermined distance between a UV radiation source and the skin.

62. (previously presented) The device of claim 39, further comprising a temperature sensor.

63. (previously presented) The device of claim 62, wherein the temperature sensor is coupled to the evaluation unit and is operable to initiate a UV radiation absorption determination of the skin when an optimum bulb wall temperature of a UV radiation source to be measured in a tanning bed is reached.

64. (previously presented) The device of claim 57, further comprising a data bank coupled to the common sensor for storing data received by the common sensor.

65. (previously presented) The device of claim 49, wherein the processor unit computes a maximum UV exposure time or UV radiation dose from individual data of a human being and of a UV radiation source.

66. (previously presented) The device of claim 65, wherein when the maximum UV exposure time or UV radiation dose is reached, the UV radiation source is shut off.

67. (currently amended) A method of determining an allowable UV exposure time or allowable UV radiation dose for human skin, comprising:

determining absorption of erythemally-effective UV radiation in a layer of the skin that has developed hyperkeratosis based on a degree of diffuse reflection of UV radiation in the layer of skin, the depth of the determination being adjusted for a determination in a specific skin layer; and

assigning a UV radiation threshold value to the determination of UV radiation absorption of the skin.

68. (previously presented) The method of claim 67, wherein the UV radiation is carried out by means of direct UV irradiation using UV radiation having a wavelength of approximately 345 nm to 355 nm.

69. (previously presented) The method of claim 67, wherein the UV radiation is carried out by means of fluorescence photometry.

70. (previously presented) The method of claim 67, wherein a mean value of a plurality of determinations of UV radiation absorption of the skin is taken, and a UV radiation threshold value is assigned to the mean value.

71. (previously presented) The method of claim 70, wherein the determinations are made at different sites of the skin.

72. (previously presented) The method of claim 70, wherein the determinations are made at different depths of the skin.

73. (previously presented) The method of claim 67, wherein a maximum UV exposure time or UV radiation dose is determined from the threshold value and stored data of a UV radiation source.

74. (previously presented) The method of claim 73, wherein the stored data are data derived from a measurement of the UV radiation source.

75. (previously presented) The method of claim 67, wherein the method is used during a UV irradiation treatment of a human being.

76. (previously presented) The method of claim 67, wherein the method is carried out by using a device comprising a UV emitter for emitting UV radiation on the skin, a UV sensor for receiving UV radiation diffusely reflected by the skin, and an evaluation unit coupled to the UV emitter and the UV sensor for determining UV radiation absorption of the skin based on the UV radiation emitted on the skin by the UV emitter and the UV radiation received by the UV sensor.